# **Kentucky Youth Tobacco Survey 2004**

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#### Note to Reader:

This report has been updated from the previous report released in the fall of 2005 to include results of statistical significance tests between variables from the 2002 and 2004 Kentucky Youth Tobacco Surveys. Tests were completed using SAS and SUDAAN software. Differences are statistically significant at a p-value of less than 0.05, using Chi-Square test. In the following pages, an asterisk () over the data designates a statistically significant difference between a 2002 and 2004

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### **INTRODUCTION**

The 2004 Kentucky Youth Tobacco Survey (KYTS) was conducted from October 2004 to February 2005 by local health department tobacco coordinators, the University of Kentucky Center for Prevention Research, and the Kentucky Department for Public Health. Technical assistance was provided by the Centers for Disease Control and Prevention (CDC) Office on Smoking and Health (OSH). Students were surveyed using the Youth Tobacco Survey instrument originally developed in 1997 by Florida Department of Health and the CDC. The 2004 KYTS contains 69 questions and was administered to 2,120 students in high school and 2,306 students in middle school. The following report contains results from the 2004 high school KYTS, as well as comparison results from the high school survey in 2002. Weighted data for middle schools was not obtained in 2004, so it is omitted in this report, with the exception of data in Tables 3 and 4. The data from the middle school survey cannot be generalized to the entire middle school population of the state. Fifteen percent of students surveyed for the middle school KYTS were current smokers in 2004.

The KYTS is designed to gather information on young people concerning:

- Prevalence of tobacco use, including cigarettes, smokeless tobacco, cigars, and bidis
- Cessation of tobacco use
- Secondhand smoke exposure
- Access to tobacco products
- Use of tobacco in schools
- Tobacco-related attitudes
- Influence of peers and family members to use tobacco products

The Kentucky Tobacco Prevention and Cessation Program (KTPC), located in the Department for Public Health, has received funding from the CDC since 1993 in order to establish a comprehensive tobacco control program to reduce disease, disability, and death related to tobacco use. In order to achieve this, KTPC addresses the following four goals:

- Preventing the initiation of tobacco use among young people
- Promoting quitting among young people and adults
- Eliminating nonsmokers' exposure to secondhand smoke
- Identifying and eliminating the disparities related to tobacco use and its effects among different population groups

Along with federal funds, the KTPC receives state funds through the Master Settlement Agreement. With these resources, KTPC supports 56 local health departments in building local capacities to prevent and eliminate harm from tobacco use. The successful administration of the KYTS by local health departments reveals information useful in monitoring the work toward achieving each of the four goals listed above. Evaluation of the activities conducted to prevent and control tobacco use in Kentucky will result in a greater knowledge of how to direct resources in the future.

The results from the KYTS also benefit monitoring of Healthy Kentuckians 2010, which is a health initiative reflecting Kentucky's commitment to the national prevention project "Healthy People 2010." The KYTS provides data for many objectives in chapter 3 of Healthy Kentuckians 2010, such as objectives to reduce the prevalence of cigarettes and smokeless tobacco among youth, reduce the proportion of young people who have smoked a whole cigarette before age 13, and increase the proportion of young people who have never smoked.

#### **EXECUTIVE SUMMARY**

#### Cigarettes

- Current high school smoking decreased from 34% in 2002 to 28% in 2004.
- Lifetime cigarette use among high school students decreased from 69% in 2002 to 63% in 2004.\*

#### Smokeless Tobacco

- Current smokeless tobacco use among high school students increased from 14% in 2002 to 15% in 2004.
- In 2004, smokeless tobacco use among male high school students was 24%, compared to 6% among females.
- From 2002 to 2004, lifetime smokeless tobacco use among high school students remained the same at 31%.

#### Cigars

- From 2002 to 2004, current cigar smoking among high school students decreased from 17% to 15%.
- Lifetime cigar smoking among high school students also decreased over two years from 48% to 41%.\*

#### Bidis

- Current bidi smoking among high school students decreased from 5% in 2002 to 4% in 2004.
- Lifetime bidi smoking among high school students remained the same from 2002 to 2004 at 7%.\*

#### Any Tobacco

- Current use of any tobacco among high school students decreased from 44% in 2002 to 38% in 2004.\*
- From 2002 to 2004, lifetime users of any tobacco in high school decreased from 76% to 69%.

#### **Quit Attempts**

- From 2002 to 2004, the percentage of high school students who think they would be able to quit smoking remained the same (69%).
- High school current smokers who attempted to quit at least once in the past 12 months increased from 55% in 2002 to 60% in 2004.
- The percentage of high school students who were current smokers and participated in a program to help them quit increased from 7% in 2002 to 8% in 2004.

#### Access

- In 2002, high school current smokers were more likely to get their cigarettes by giving money to an older person to purchase them.
- In 2004, a higher percentage of high school current smokers purchased cigarettes for themselves in a store than those who got them from an older person or borrowed/bummed them from someone.

#### Secondhand Smoke

- From 2002 to 2004, the percentage of high school current smokers who were in a room with someone who was smoking within the past week decreased from 93% to 92%.
- From 2002 to 2004, the percentage of high school never smokers who were in a room with someone who was smoking within the past week decreased from 74% to 66%.\*

Current use is defined as having smoked or used a tobacco product on one or more of the past 30 days.

Lifetime use is defined as having ever tried smoking or using a tobacco product, even one or two puffs.

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

# **EXECUTIVE SUMMARY (continued)**

#### Secondhand Smoke (continued)

- The percentage of high school current smokers in 2004 who were riding in a car with someone who was smoking within the past week was 85%, compared to 88% in 2002.
- From 2002 to 2004, the percentage of high school never smokers who were riding in a car with someone who was smoking within the past week decreased from 45% to 42%.

#### Perceptions and Attitudes Toward Tobacco Use

- From 2002 to 2004, the percentage of high school students who think young people who smoke have more friends increased from 19% to 21%.
- Over two years, the percentage of high school students who think smoking makes young people look cool decreased from 12% to 11%.
- In 2004, 94% of high school never smokers considered smoke from someone else's cigarette to be harmful, compared to 88% of current smokers.
- Eighty-nine percent of high school never smokers believed people could get addicted to using tobacco just like they can get addicted to heroin or cocaine, compared to 83% of current smokers.
- Of high school students who never smoked, 5% thought it was safe to smoke for a year or two, as long as you quit after that, while 28% of current smokers believed it was safe.
- Ninety-three percent of high school never smokers thought young people risk harming themselves if they smoke between one and five cigarettes a day, compared to 86% of current smokers.

#### Social Influences Impacting Tobacco Use

- From 2002 to 2004, the percentage of high school current smokers who lived with someone who currently smoked increased from 61% to 66%
- Over two years, the percentage of high school never smokers who lived with someone who currently smoked increased from 38% to 40%.
- In 2004, 46% of high school current smokeless tobacco users lived with someone who currently used smokeless tobacco, which is an increase from 32% in 2002.
- From 2002 to 2004, the percentage of high school never smokeless tobacco users who lived with someone who currently used smokeless tobacco increased from 16% to 17%.
- In 2004, 89% of high school current smokers had one or more friends that smoked, which is a decrease from 91% in 2002.
- Over two years, high school never smokers who had one or more friends that currently smoked decreased from 44% to 41%.
- Current users of smokeless tobacco who had one or more friends that currently used remained the same (85%) from 2002 to 2004.
- Never smokeless tobacco users who had one or more friends that currently used increased from 29% to 31% from 2002 to 2004.

#### **Tobacco Dependence**

- From 2002 to 2004, high school lifetime smokers who smoked their first cigarette before age 11 increased from 15% to 19%.
- High school lifetime smokers who have smoked 100 or more cigarettes decreased from 2002 to 2004 (from 39% to 35%).
- High school current smokers who feel like they need a cigarette every day remained the same from 2002 to 2004 at 48%.

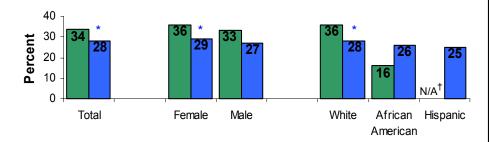
<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.</p>

### A. Cigarettes: Current Use

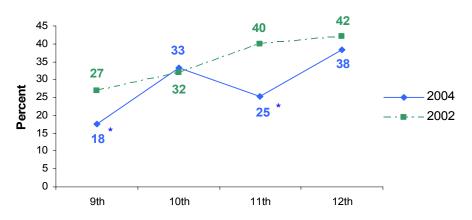
Chart 1: Current Cigarette Smoking by Gender and Race

**2002** 

**2004** 



**Chart 2: Current Cigarette Smoking by Grade** 



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

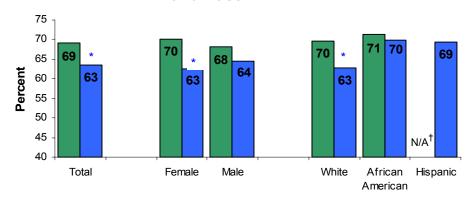
Current cigarette use is defined as having smoked at least one cigarette on one or more of the past 30 days.

- Thirty-four percent of high school students were current smokers in 2002, compared to 28% in 2004 (statistically significant decline).
- Twenty-seven percent of males and 29% of females (statistically different) were current smokers in 2004, which is a decrease from 2002 for both genders.
- From 2002 to 2004, current smoking among whites in high school decreased significantly (from 36% to 28%), while current smoking among African Americans in high school increased over this time period (from 16% to 26%).
- Twenty-five percent of Hispanic high school students were current smokers in 2004.
- In 2004, 10th grade students were more likely to be current cigarette smokers than students in other high school grades.
- Compared to 2002, the prevalence of current cigarette smokers in high school in 2004 was lower in all high school grades except for 10th.
- Statistically significant differences were among ninth grade students (from 27% in 2002 to 18% in 2004) and 11th grade students (from 40% in 2002 to 25% in 2004).

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

### A. Cigarettes: Lifetime Use

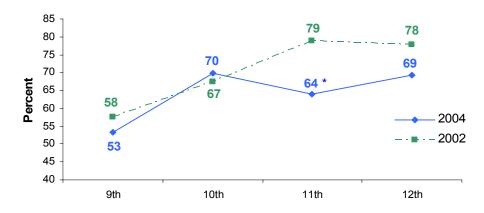
Chart 3: Lifetime Cigarette Smoking by Gender and Race



**2002** 

**2004** 

**Chart 4: Lifetime Cigarette Smoking by Grade** 



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

Lifetime cigarette smoking is defined as having ever tried cigarette smoking, even one or two puffs.

- In 2002, 69% of high school students were lifetime cigarette smokers, compared to 63% in 2004 (a statistically significant difference).
- Both male and female lifetime cigarette smokers decreased over two years. Sixty-four percent of males and 63% of females (statistically significant difference) were lifetime cigarette smokers in 2004.
- Lifetime cigarette smoking decreased significantly among white high school students from 70% to 63%.
- Lifetime cigarette smoking decreased among African American high school students from 71% to 70%.
- Sixty-nine percent of Hispanic high school students were lifetime cigarette smokers in 2004.
- In 2004, 10th grade students were more likely to be lifetime cigarette smokers than students in other high school grades.
- Compared to 2002, the prevalence of lifetime cigarette smokers in 2004 was lower in all high school grades except for 10th grade.
- There was a statistically significant decrease among 11th grade lifetime smokers (from 79% in 2002 to 64% in 2004).

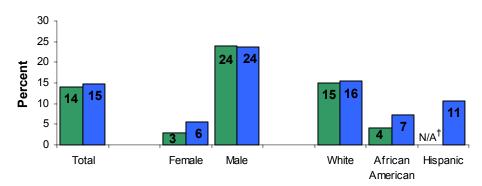
<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

#### B. Smokeless Tobacco: Current Use

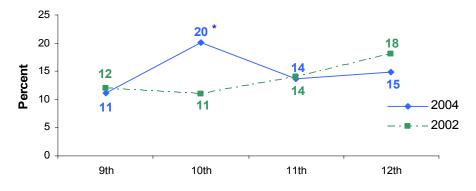
**Chart 5: Current Smokeless Tobacco Use by Gender and Race** 

**2002** 





**Chart 6: Current Smokeless Tobacco Use by** Grade



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

Current smokeless tobacco use is defined as having used smokeless tobacco on at least one occasion during the past 30 days.

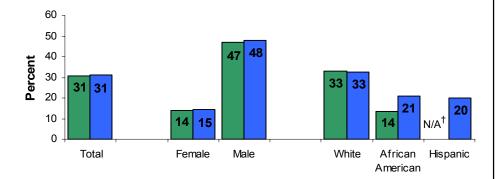
- Current smokeless tobacco use increased from 2002 to 2004 (from 14% to 15%).
- For both years, males were more likely to use smokeless tobacco than females. In 2004, 24% of males were current smokeless tobacco users, compared to 6% of females.
- In both 2002 and 2004, white high school students were more likely to be current users of smokeless tobacco than other races, with 16% using the product in 2004.
- Current smokeless tobacco use increased from 4% to 7% among African American high school students.
- Eleven percent of Hispanic high school students were current smokeless tobacco users in 2004.
- In 2004, 10th grade students were more likely to be current smokeless tobacco users than students in other high school grades.
- Compared to 2002, the prevalence of current smokeless tobacco users in 2004 was lower in grades nine and 12. higher in grade 10, and the same in grade 11.
- A statistically significant increase occurred among 10th grade current spit tobacco users (from 11% in 2002 to 20% in 2004).

Statistically significant difference, p-value < 0.05. Chi Square.

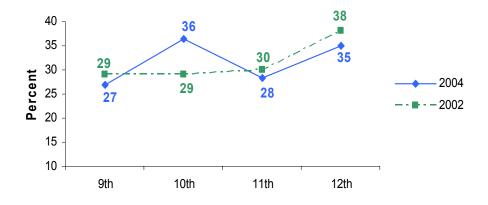
#### B. Smokeless Tobacco: Lifetime Use

Chart 7: Lifetime Smokeless Tobacco Use by ☐ 2002

Gender and Race ☐ 2004



**Chart 8: Lifetime Smokeless Tobacco Use by Grade** 



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

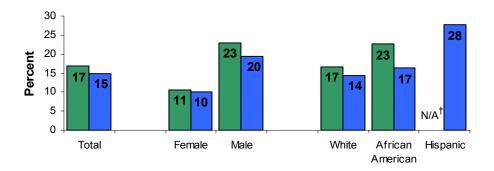
Lifetime smokeless tobacco use is defined as having ever used chewing tobacco, snuff, or dip.

- The prevalence of high school lifetime smokeless tobacco use was nearly the same in 2002 and 2004.
- Lifetime smokeless tobacco use among female high school students increased from 14% to 15% over two years.
- From 2002 to 2004, there was an increase in the prevalence of lifetime smokeless tobacco use among high school males from 47% to 48%.
- Lifetime smokeless tobacco use among white high school students remained about the same over the time period.
- From 2002 to 2004, lifetime smokeless tobacco use among African American high school students increased from 14% to 21%.
- Twenty percent of Hispanic high school students were lifetime smokeless tobacco users in 2004.
- In 2004, 10th grade students were more likely to be lifetime smokeless tobacco users than students in other high school grades.
- Compared to 2002, the prevalence of lifetime smokeless tobacco users in 2004 was lower in all high school grades except for 10th.

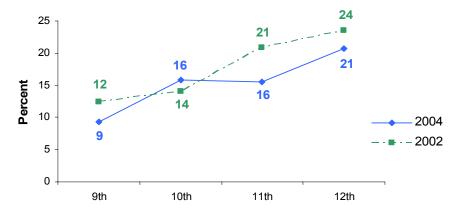
### C. Cigars: Current Use

Chart 9: Current Cigar Smoking by Gender and
Race

□ 2002
□ 2004



**Chart 10: Current Cigar Smoking by Grade** 

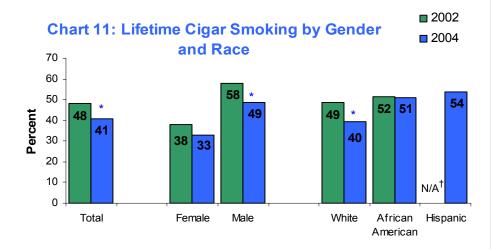


<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

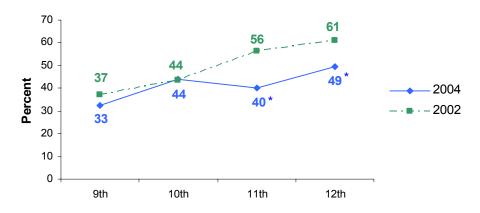
Current cigar use is defined as having smoked at least one cigar on one or more of the past 30 days.

- Current cigar smoking among high school students in 2002 and 2004 was 17% and 15%, respectively.
- Males were more likely to have been current cigar smokers than females during both years.
- Current cigar smoking decreased over two years for both genders.
- The prevalence of current cigar smoking among white high school students decreased from 17% to 14%.
- Current cigar use among African American high school students decreased from 23% to 17%.
- Twenty-eight percent of Hispanic high school students were current cigar smokers in 2004
- In 2004, 10th grade students were more likely than students in other high school grades to be current cigar smokers.
- Compared to 2002, the prevalence of current cigar smokers in 2004 was lower in all high school grades except for 10th.

### C. Cigars: Lifetime Use



**Chart 12: Lifetime Cigar Smoking by Grade** 



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

Lifetime cigar use is defined as having ever tried smoking cigars, cigarillos, or little cigars, even one or two puffs.

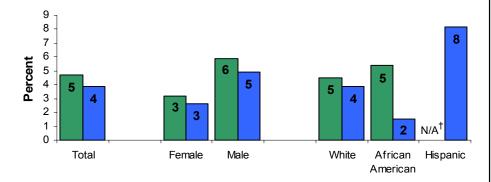
- The prevalence of lifetime cigar smokers in high school decreased from 48% to 41% from 2002 to 2004 (statistically significant difference).
- Lifetime cigar smoking among females in high school decreased from 38% to 33%.
- From 2002 to 2004, lifetime cigar smoking decreased among high school males from 58% to 49% (statistically significant difference).
- Among white high school students, lifetime cigar smoking decreased significantly from 49% to 40% over two years.
- Lifetime cigar smoking decreased among African American high school students from 52% to 51%.
- In 2004, 54% of Hispanic high school students were lifetime cigar smokers.
- In 2004, 10th grade students were more likely to be lifetime cigar smokers than students in other grades in high school.
- From 2002 to 2004, the prevalence of lifetime cigar smoking decreased in all high school grades except for 10th.
- Statistically significant decreases were among lifetime cigar smokers in 11th (from 56% in 2002 to 40% in 2004) and 12th (from 61% in 2002 to 49% in 2004) grades.

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

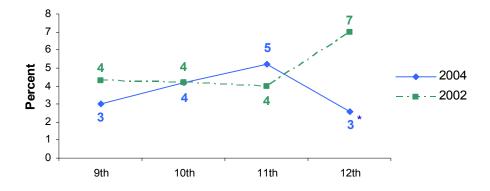
#### D. Bidis: Current Use

Chart 13: Current Bidi Smoking by Gender and Race





**Chart 14: Current Bidi Smokers by Grade** 



<sup>†</sup>Insufficient data (sample size is less than 50)

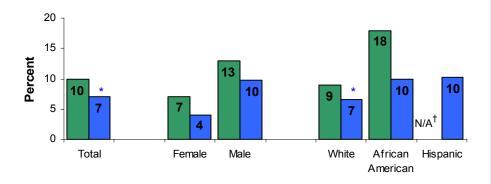
Current bidi use is defined as having smoked at least one bidi on one or more of the past 30 days.

- Bidis (pronounced "bee-dees") are hand-rolled cigarettes wrapped in a leaf, tied with a string, and imported to the United States primarily from India and other Southeast Asian countries. They are small, thin and can be flavored or unflavored.<sup>1</sup>
- Current bidi smoking among high school students decreased from 5% to 4% from 2002 to 2004.
- In both years, males were more likely to be current bidi smokers than females.
- Current bidi smoking among white high school students decreased from 5% to 4%.
- African American high school student current bidi use decreased from 5% to 2% from 2002 to 2004.
- Current bidi smoking among Hispanic high school students was 8% in 2004.
- In 2004, 3% of ninth grade students were current bidi smokers, compared to 4% in 2002.
- There was no change in current bidi smoking among 10th grade students from 2002 to 2004.
- The prevalence of current bidi smoking among 11th grade students decreased from 8% to 5%.
- Current bidi smoking among 12th grade students decreased from 7% to 3%, a statistically significant decline.

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

#### D. Bidis: Lifetime Use

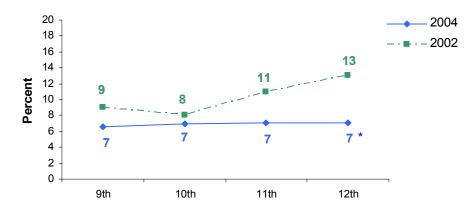
Chart 15: Lifetime High School Bidi Smokers by
Gender and Race



**2002** 

**2004** 

**Chart 16: Lifetime Bidi Use by Grade** 



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

Lifetime bidi use is defined as having ever tried smoking bidis, even one or two puffs.

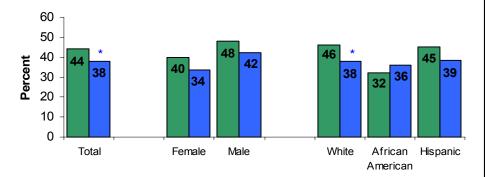
- Lifetime bidi smoking among all high school students decreased from 10% in 2002 to 7% in 2004 (a statistically significant decline).
- High school female lifetime bidi use decreased from 7% to 4%.
- Lifetime bidi smoking among high school males decreased from 13% to 10%.
- From 2002 to 2004, lifetime bidi smoking among white high school students decreased from 9% to 7% (a statistically significant decline).
- Over this time period, African American high school lifetime bidi smoking decreased from 18% to 10%.
- In 2004, Hispanic high school lifetime bidi use was 10%.
- In 2004, lifetime bidi smoking was about the same across all high school grades, at 7% of students.
- From 2002 to 2004, lifetime bidi smoking increased in all high school grades.
- There was a statistically significant difference between 12th grade students who have ever smoked bidis from 13% in 2002 to 7% in 2004.

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

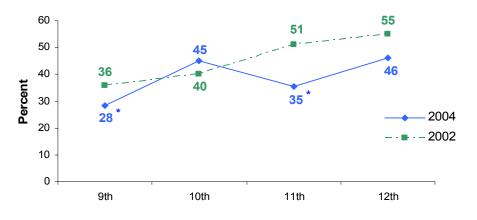
### E. Any Tobacco: Current Use

Chart 17: Current Any Tobacco Use by Gender and Race





**Chart 18: Current Any Tobacco Use by Grade** 



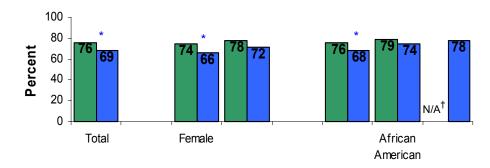
Current use of any tobacco is defined as having used any form of tobacco at least once on one or more of the past 30 days.

- Current use of any type of tobacco among all high school students decreased over the 2002 to 2004 period from 44% to 38% (a statistically significant decline).
- Males were more likely to be current users of any form of tobacco than females. Over two years, however, there was a decrease in prevalence among both genders.
- From 2002 to 2004, current use of any form of tobacco decreased among white high school students (a statistically significant decline).
- Over this time period, current use of any form of tobacco increased among African American high school students.
- Current use of any form of tobacco decreased among Hispanic high school students from 2002 to 2004.
- In 2004, the prevalence of current use of any form of tobacco was highest among 10th grade students.
- From 2002 to 2004, the prevalence of current use of any type of tobacco decreased in all high school grades except for 10th.
- Statistically significant declines occurred among high school students in grades 9 and 11 who were current users of any type of tobacco.

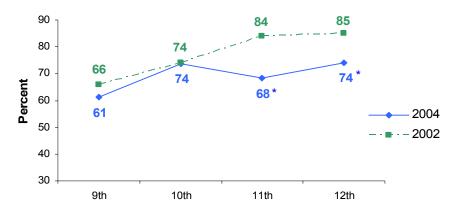
<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

### E. Any Tobacco: Lifetime Use

Chart 19: Lifetime High School Any Tobacco Use by Gender and Race ■ 2002



**Chart 20: Lifetime Any Tobacco Use by Grade** 



<sup>&</sup>lt;sup>†</sup> Insufficient data (sample size is less than 50)

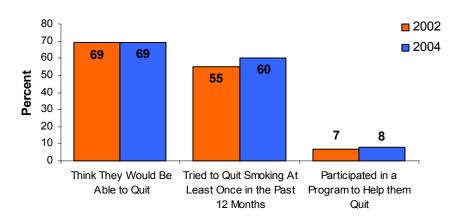
Lifetime use of any tobacco is defined as having ever tried using any form of tobacco.

- In 2004, 69% of high school students were lifetime users of any form of tobacco. This is a statistically significant decrease from 76% in 2002.
- Over two years, female and male lifetime use decreased from 74% to 66% for females (statistically significant) and 78% to 72% for males.
- Lifetime use of any form of tobacco decreased among white high school students from 76% to 68% (a statistically significant decline).
- African American high school student lifetime use also decreased from 80% to 74% from 2002 to 2004.
- In 2004, lifetime use of any type of tobacco was 78% among Hispanic students in high school.
- In 2004, lifetime use of any form of tobacco was highest among 10th grade students.
- From 2002 to 2004, the prevalence of lifetime use of any type of tobacco decreased in all grades except 10th grade, which remained the same.
- Statistically significant decreases occurred among high school students who have ever used any form of tobacco in grades 11 and 12.

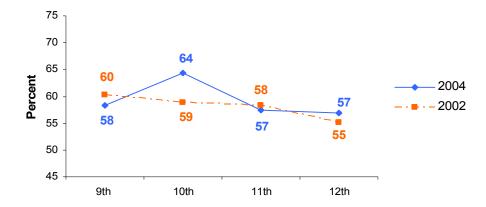
<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

### **II. CESSATION**

#### **Quitting Behavior Among Current Smokers**



**Chart 22: Quit Attempts by Grade** 



Quit attempts are defined as current smokers who have tried to stop smoking at least once in the past 12 months.

- Many high school smokers report a belief and desire to quit smoking cigarettes.
- The percentage of high school current smokers that thought they would be able to quit smoking if they wanted to remained the same from 2002 to 2004.
- Over two years, the percentage of high school current smokers who made at least one attempt to quit in the past 12 months increased from 58% to 60%.
- The percentage of high school current smokers who ever participated in a program to help them quit using tobacco increased from 7% in 2002 to 8% in 2004.
- In 2004, 10th grade students had a higher percentage of current smokers making attempts to quit than other grades in high school.
- Compared to 2002, there was a lower percentage of 9th and 11th grade students making attempts to quit smoking in 2004.
- A higher percentage of 10th and 12th grade students made attempts to quit in 2004 than 2002.

#### III. ACCESS TO TOBACCO



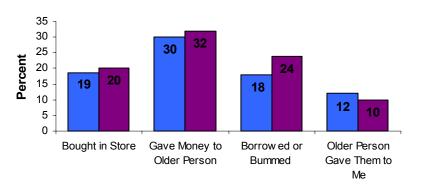
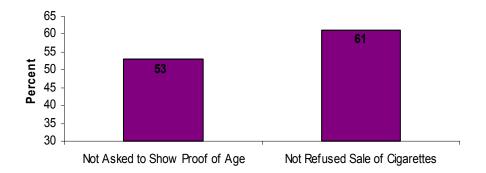


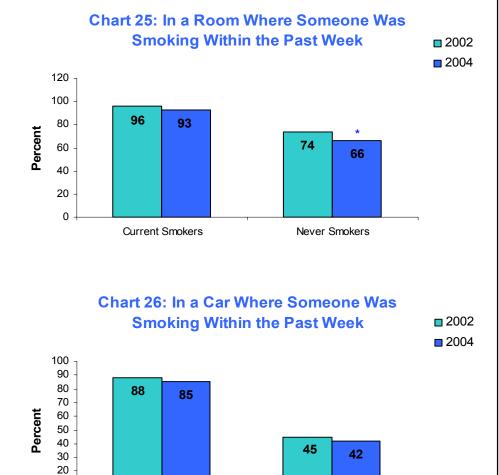
Chart 24: Comparison of Requests for ID and Refusal of Sale, 2004



As nicotine dependence develops in youth, there is a need to find a source for tobacco products. High school youth access cigarettes from a variety of sources.

- In 2004, 30% of high school students bought their cigarettes in a store, compared to 20% in 2002.
- The percentage of students who got their cigarettes by giving money to an older person to purchase them decreased from 32% to 12%.
- Eighteen percent of high school students borrowed or bummed their cigarettes from another person in 2004, which is a decrease from 24% in 2002.
- From 2002 to 2004, the percentage of students who received cigarettes from an older person increased from 10% to 12%.
- In 2004, 53% of high school students were not asked to show proof of age when they purchased cigarettes in a store.
- Sixty-one percent of high school students were not refused sale of cigarettes because of their age.

#### IV. EXPOSURE TO SECONDHAND SMOKE



Secondhand smoke exposure is attributed to approximately 38,000 deaths in the United States each year.<sup>2</sup> It is also associated with increased morbidity caused by acute respiratory infections and asthma in children.

- From 2002 to 2004, the percentage of current high school smokers who were in a room where someone was smoking within the past week decreased from 96% to 93%.
- Over two years, the percentage of high school students who never smoked who were in a room where someone was smoking within the past week decreased from 74% to 66% (a statistically significant decrease).
- Secondhand smoke exposure also decreased for current high school smokers who were in a car where someone was smoking within the past week from 88% to 85%.
- The percentage of high school students who never smoked that were in a car where someone was smoking within the past week decreased from 45% to 42%.

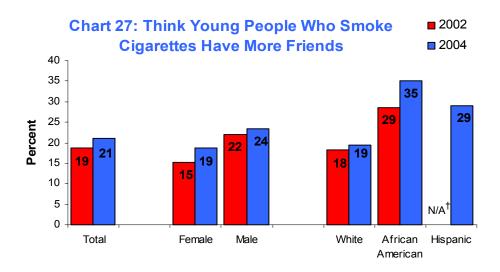
Never Smokers

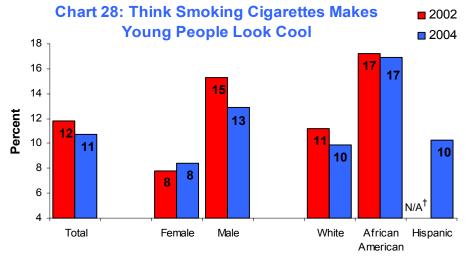
**Current Smokers** 

10

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

#### V. PERCEPTIONS AND ATTITUDES TOWARD TOBACCO USE





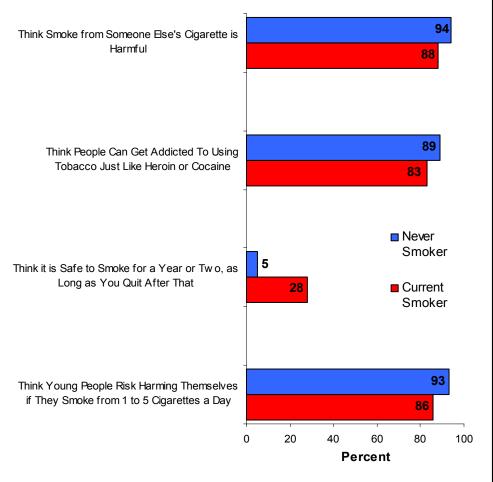
† Insufficient data (sample size is less than 50)

The attitudes and beliefs held by youth about tobacco are key determinants of their smoking behavior. What youth perceive about smoking, as well as social and environmental influences, predict smoking prevalence.<sup>3</sup>

- From 2002 to 2004, high school students who think young people who smoke have more friends increased from 19% to 21%.
- The percentage of female high school students who think young people who smoke have more friends increased from 15% to 19%.
- Over two years, the percentage of male high school students who think young people who smoke have more friends increased from 22% to 24%.
- White high school students who think young smokers have more friends increased from 18% to 19%.
- An increase in African American high school students who think young smokers have more friends has also occurred, from 29% in 2002 to 35% in 2004.
- In 2004, 29% of Hispanic high school students thought young people who smoke have more friends.
- The percentage of high school students who think smoking cigarettes makes young people look cool decreased from 12% to 11%
- From 2002 to 2004, there were decreases in both male and white categories in the percentage of students who think smoking cigarettes make young people look cool.
- The percentages of both female and African American high school students who think smoking makes people look cool remained about the same over the years.
- In 2004, 10% of Hispanic high school students thought smoking cigarettes made young people look cool or fit in.

#### V. PERCEPTIONS AND ATTITUDES TOWARD TOBACCO USE

Chart 29: Knowledge and Attitudes of Current and Never Smokers, 2004 only



High school youth who smoke do not perceive tobacco use to be as harmful as those who do not smoke.

- In 2004, 94% of high school students who never smoked thought smoke from someone else's cigarette was harmful, compared to 88% of those who were current smokers.
- Eighty-nine percent of never smokers in high school believed people could get addicted to using tobacco just like heroine or cocaine, compared to 83% of smokers.
- Almost a third of current smokers in high school thought it was safe to smoke for a year or two, as long as you quit after that, while only 5% of never smokers thought it was safe.
- A higher percentage of high school students who have never smoked (93%) thought young people risked harming themselves if they smoked from one to five cigarettes a day. Eighty-six percent of current smokers thought it risky to smoke between one and five cigarettes a day.

### VI. SOCIAL INFLUENCES IMPACTING TOBACCO USE

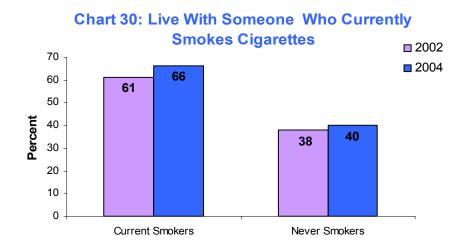
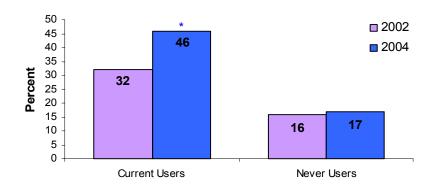


Chart 31: Live With Someone Who Currently
Uses Smokeless Tobacco



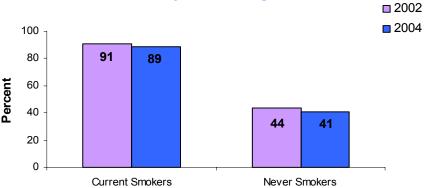
What a young person perceives to be acceptable or appropriate behavior in a given situation is often based on the attitudes and behaviors of those around the person, such as family and friends. Current high school tobacco users are more likely to have family and friends that use tobacco than those who have never used.

- From 2002 to 2004, the percentage of current smokers who lived with someone who currently smoked increased from 61% to 66%.
- Over two years, high school never smokers who lived with someone who currently smoked increased from 38% to 40%.
- From 2002 to 2004 the percentage of high school current smokeless tobacco users who lived with someone who currently used smokeless tobacco increased from 32% to 46% (a statistically significant increase).
- Over two years, high school students who never used smokeless tobacco who lived with someone who currently used smokeless tobacco increased from 16% to 17%.

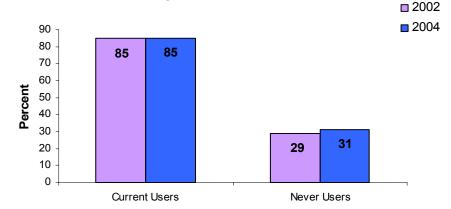
<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.

### VI. SOCIAL INFLUENCES IMPACTING TOBACCO USE





# Chart 33: Have One or More Friends Who Currently Use Smokeless Tobacco



- From 2002 to 2004, high school students who were current smokers with one or more friends who currently smoked decreased from 91% to 89%.
- Over two years, high school students who never smoked who had one or more friends that currently smoked decreased from 44% to 41%.
- From 2002 to 2004, high school students who were current smokeless tobacco users with one or more friends who were current smokeless tobacco users remained about the same at 85%.
- Over two years, high school students who never used smokeless tobacco who had one or more friends that did use the product increased from 29% to 31%.

#### VII. TOBACCO DEPENDENCE



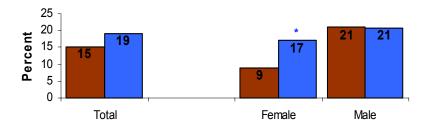
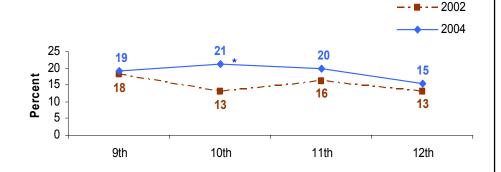


Chart 35: Lifetime Smokers Who Smoked First Cigarette Before Age 11 by Grade



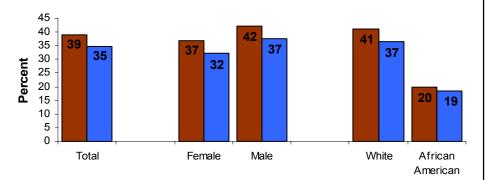
Each day, about 4,400 young people in the United States initiate cigarette smoking.<sup>4</sup>

- In Kentucky from 2002 to 2004, the percentage of high school lifetime smokers who smoked their first cigarette before age 11 increased from 15% to 19%.
- The percentage of high school female lifetime smokers who smoked their first cigarette before age 11 increased from 9% to 17% (a statistically significant increase).
- Over two years, male high school students who were lifetime smokers who smoked their first cigarette before age 11 remained the same at 21%.
- From 2002 to 2004, the percentage of high school students who were lifetime smokers and smoked their first cigarette before age 11 increased in all high school grades.
- In 2004, 10th grade students had the highest percentage of lifetime smokers who smoked their first cigarette before age 11 of all grades in high school, which is a statistically significant increase from 2002.

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.</p>

#### VII. TOBACCO DEPENDENCE

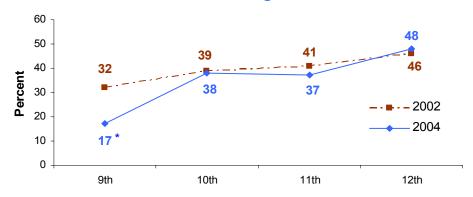




**2002** 

**2004** 

Chart 37: Lifetime Smokers Who Have Smoked 100 or More Cigarettes



Youth that have smoked at least 100 cigarettes in their lifetime are at risk for becoming established smokers, or those who smoke cigarettes on a daily basis. Having smoked 100 cigarettes in a lifetime is also a strong indicator of nicotine addiction.

- From 2002 to 2004, the percentage of lifetime high school smokers who have smoked at least 100 cigarettes in their lifetime decreased from 39% to 35%.
- Over two years, female high school students who are lifetime smokers and have smoked at least 100 cigarettes decreased from 37% to 32%.
- Male high school students who have smoke 100 cigarettes in their lifetime decreased from 42% to 37%.
- Both whites and African American high school students who smoked 100 cigarettes in their lifetime also decreased to 37% and 19%, respectively, in 2004.
- From 2002 to 2004, lifetime smokers who have smoked 100 or more cigarettes in their lifetime decreased in all grades except 12th, which increased over the two years.
- In 2004, 12th grade students were more likely to be lifetime smokers who smoked 100 or more cigarettes than students in all other high school grades.
- A statistically significant decrease occurred among 9th grade students from 2002 to 2004.

<sup>\*</sup> Statistically significant difference, p-value < 0.05, Chi Square.</p>

#### VII. TOBACCO DEPENDENCE



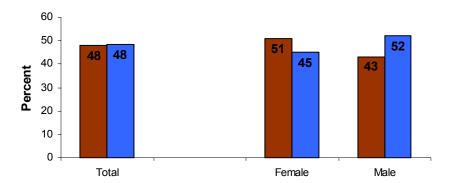
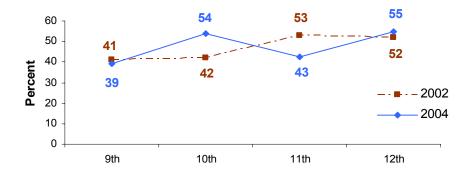


Chart 39: Current Smokers Who Feel Like They Need a Cigarette Everyday



Young smokers who feel like they need a cigarette everyday are considered established smokers. For this group, quitting smoking is more difficult and there is a strong likelihood that smoking will continue into adulthood.

- From 2002 to 2004, the percentage of currently smoking high school students who felt like they needed a cigarette everyday remained the same at 48%.
- Over two years, high school females who were current smokers and felt like they needed a cigarette everyday decreased from 51% to 45%.
- High school males who were current smokers and felt like they needed a cigarette everyday increased from 43% to 52%.
- From 2002 to 2004, current smokers in high school who felt like they needed a cigarette everyday decreased in grades 9 and 11 and increased in grades 10 and 12.
- In 2004, 12th grade students who were current smokers were more likely to report they felt like they needed a cigarette everyday, compared to all other high school grades.

# A. High School Current Use

Table 1. Current Tobacco Use Among Kentucky High School Students by Gender, Race/Ethnicity, and Grade

Category	Cigarette Use		Smokeless Tobacco Use		Cigar Use		Bidi Use			Any Tobacco Use		
	%	95% CI	%	95% CI	%	95% CI		%	95% CI		%	95% CI
Gender												
Female	29.1	4.9	5.6	2.3	10	2.7		2.6	1.2		33.8	4.7
Male	26.8	4.8	23.8	4.8	19.5	3.2		4.9	1.7		42.1	5.1
Race/Ethnicity												
White	28.1	4.3	15.6	2.9	14.3	2.3		3.9	1.1		38.1	3.9
African American	26	12.5	7.3	8.3	16.5	8.9		1.5	1		35.9	12.2
Hispanic	25.1	12.8	10.6	9.4	27.8	15		8.2	6.5		38.5	15.6
Other	32.8	15.5	6.6	7.8	16.7	10.7		6.1	4.8		37.9	15.3
Grade												
9th	17.7	3.2	11.1	3.4	9.3	2.4		3	1.2		28.4	3.8
10th	33.3	7.1	20.1	5.2	15.9	4.1		4.2	2.4		45	6.1
11th	25.4	7.1	13.6	6.1	15.6	4.8		5.2	2.6		35.4	7.6
12th	38.4	8.6	14.9	5.4	20.7	7.3		2.6	1.7		46.1	7.9
Total	27.9	4	14.7	2.9	14.8	2.4		3.9	1		38	3.7

# **B.** High School Lifetime Use

Table 2. Lifetime Tobacco Use Among Kentucky High School Students by Gender, Race/Ethnicity, and Grade

Category	Cigarette Use		Smokeless Tobacco Use		Cigar Use		Bid		Use	Any Tobacco Use	
	%	95% CI	%	95% CI	%	95% CI		%	95% CI	%	95% CI
Gender											
Female	62.5	3.9	14.6	3.8	32.7	6		4	1.8	65.5	3.4
Male	64.4	4.7	48.1	4.7	48.8	5		9.8	2.2	71.7	4.4
Race/Ethnicity											
White	62.8	3.9	32.5	3.2	39.5	4.1		6.6	1.3	68	3.5
African American	69.8	9.2	20.7	9.5	50.9	10.1		10	6.3	74.4	7.3
Hispanic	69.4	9	20.2	11.1	54	11.1		10.3	7.1	77.7	8.5
Other	61.3	14.8	29.6	14.3	40.4	10.7		13.2	10	70	12.9
Grade											
9th	53.4	4.4	27	6.1	32.6	4.2		6.6	2.3	61.1	5.2
10th	69.8	6	36.4	5.8	43.8	7.9		7	2.9	73.8	4.5
11th	63.9	6.6	28.4	7.7	40.3	6.2		7.1	2.9	68.3	7.1
12th	69.4	8.6	34.9	6.2	49.4	7.8		7.1	3.1	74	7.3
Total	63.4	3.7	31.3	3	40.6	4.2		7	1.5	68.5	3.3

### C. Middle School Current Use

Table 3. Current Tobacco Use Among Kentucky Middle School Students by Gender, Race/Ethnicity, and Grade<sup>†</sup>

Category	Cigarette Use	Smokeless Tobacco Use	Cigar Use	Bidi Use	Any Tobacco Use
	%	%	%	%	%
Gender					
Female	17.2	4.6	4.1	11.1	25.3
Male	12.3	14.8	8.9	14.3	31
Race/Ethnicity					
White	14.8	9.9	5.8	12.8	28.2
African American	13.2	6.7	10.7	8.4	24
Hispanic	n/a	n/a	n/a	n/a	n/a
Other	13.8	9.9	9.4	16.5	31.6
Grade					
6th	11	8.4	4.7	11.3	23.4
7th	12.2	8.7	4.7	13.1	26.4
8th	20.2	11.3	9.3	13.3	33.5
Total	14.7	9.7	6.5	12.8	28.2
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<sup>&</sup>lt;sup>†</sup> Data is unweighted and not an accurate estimate of the entire state's public middle school population. Data is only representative of those surveyed.

### D. Middle School Lifetime Use

Table 4. Lifetime Tobacco Use Among Kentucky Middle School Students by Gender, Race/Ethnicity, and Grade<sup>†</sup>

Category	Cigarette Use	Smokeless Tobacco Use	Cigar Use	Bidi Use	Any Tobacco Use
	%	%	%	%	%
Gender					
Female	40.5	17.9	16.4	12	51.8
Male	40.3	35.6	27.8	14.3	56.8
Race/Ethnicity					
White	39.4	27.1	21	13.5	53.3
African American	48.9	15.1	31.2	7.4	57.1
Hispanic	n/a	n/a	n/a	n/a	n/a
Other	43.1	33.6	22.8	16.4	63
Grade					
6th	30.2	24.3	15.9	12.3	46.1
7th	36.7	26.2	20.6	12	51.9
8th	51.7	29	28.5	14.5	62.8
Total	40.4	26.7	22	13.2	54.3

<sup>†</sup>Data is unweighted and not an accurate estimate of the entire state's public middle school population. Data is only representative of those surveyed.

# **E. Sample Characteristics**

Table 5: Sample Characteristics, Kentucky Middle and High School Survey Participants								
Category	High School Actual Number	High School Weighted Percentage	Middle School Actual Number	Middle School Unweighted Percentage				
Gender								
Female	1,056	50%	1,146	50%				
Male	1,040	50%	1,151	50%				
Race/Ethnicity								
White	1,720	89%	1,720	77%				
African American	210	9%	227	10%				
Hispanic	43	1%	57	3%				
Other	56	1%	237	11%				
Grade								
6th			729	32%				
7th			697	31%				
8th			856	38%				
9th	916	30%						
10th	425	26%						
11th	394	23%						
12th	334	22%						

### IX. TECHNICAL NOTES

#### Sample

A two-stage cluster sample design was used to produce a representative sample of students in Kentucky. The first stage consisted of randomly choosing 90 high schools from among the 231 high schools in the state with probability proportional to enrollment size. Of these, 64 high schools agreed to participate. Of 95 randomly chosen middle schools out of a possible 218 in the state, 64 agreed to participate.

The second stage of the sampling involved randomly choosing classes within the sampled schools. All students from each randomly selected classroom were asked to participate. A total of 2,352 students from high school and 2,651 students from middle school were asked to participate in the KYTS. A total of 2,120 high school students (grades 9-12) and 2,306 middle school students (grades 6-8) completed the survey. The participation rate was 90.14% (2,120/2,352) for high school students and 86.99% (2,306/2,651) for middle school students. The overall response rate was 64.1% for high schools and 51.28% for middle schools.

#### **Survey Instrument**

The KYTS was given to students in one class period. Those administering the survey protected student privacy by taking procedures to assure that student participation was anonymous and voluntary. Students completed a self-administered questionnaire in the classroom and recorded their answers on a response sheet. The core questionnaire contained 69 items, including questions about tobacco use, exposure to secondhand smoke, smoking cessation, school curriculum, minors' ability to purchase or obtain tobacco products, knowledge and attitudes about tobacco, familiarity with pro-tobacco and anti-tobacco media messages, as well as demographic items.

#### Weighting

The high school sample for the KYTS is representative of all public high school students in Kentucky. The survey was administered to both middle and high school students throughout the state, however, weighted data could only be collected for the high school population. The response rate for the middle school students surveyed was too low to produce estimates that are representative of the entire middle school population of the state. Without weighted estimates, tests of statistical significance cannot be done on prevalence estimates. In this report, unweighted estimates are provided without confidence intervals in the reports section .

A weighting factor was applied to each high school questionnaire to reduce bias by adjusting for non-response and to reflect the likelihood of sampling each student. Because the high school results are weighted, they can be used to make inferences concerning tobacco use risk behaviors of public school students in grades 9 through 12 in Kentucky.

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